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Review of Reverse Engineering Social Media

2014-11-09 01:11:17 matthew

Review of Gehl, Robert W. *Reverse Engineering Social Media: Software, Culture, and Political Economy in New Media Capitalism*. Philadelphia: Temple University Press, 2014.

The Wikipedia article “Criticism of Facebook” was created in August 2007. What was once a few paragraphs about privacy and the risks of posting illicit photographs, is, seven years later, a massive litany of psychological effects, censorship cases, lawsuits, hate groups, Terms of Service disputes and security flaws.¹ Among some 20 subject headings and 15,000 words, however, one finds very little direct criticism of Facebook’s business model. Instead, in this mass of user-generated content, one must string together a route through any number of “privacy concerns,” “controversial features” and speculations on possible “Like Fraud” to encounter the service-for-data transaction at the heart of Facebook’s commercial success, if not new media capitalism itself.

Such an oversight does not plague *Reverse Engineering Social Media*, Robert W. Gehl’s incisive critique of the political economy of social network sites and crowdsourced media platforms. Gehl, employing a compelling blend of concepts from computer science and Marxian theory, circumvents sensational headlines around social bots, democratized media and the death of MySpace to analyze these phenomena in relation to issues of templated user activity, consumer surveillance and free labour.² There’s no confusion about the significance of social media here. These new sites and platforms are “the corporate response to the mass creativity, collaboration, and desires of networked peoples.”³ They are “new media capitalism’s attempt to absorb and capture this explosion of user-generated content as objectified surplus value.”⁴

Reverse Engineering makes its substantial contribution to existing social media criticism by offering a detailed look at how social media operate, as well as a concrete vision for realizing alternatives. Where, for example, Tarleton Gillespie analyzes how web 2.0 platforms present themselves differently (and advantageously) to users, advertisers and policy-makers,⁵ Gehl’s interest is in the specific ways these platforms format, organize, capture and profit from user activity. Where critics like Evgeny Morozov debunk the governing ideologies of Silicon Valley, Gehl’s critique mostly ignores popular web discourses. Instead, what’s central to his account are the material artifacts that turn communication into labour and extract surplus value, as well as how companies control the data, algorithms, servers and software that constitute the means of production. Rather than measure social media platforms against the ‘false consciousness’ of digital utopianism, the idea is to pinpoint exactly where and how they exclude and exploit in order to “reverse engineer this system and look for something better.”⁶

As an approach, “reverse engineering” takes place along three intersecting paths. First, it means exposing how social media platforms embody a mix of fundamental assumptions and practices in artificial intelligence, computer science and software engineering. A case study on social bots (chapter one), for instance, traces a lineage back to Alan Turing’s universal machine and his belief that computers would one day be capable of displaying human-like intelligence. Turing’s work suggested that any machine, inanimate or biological, could be read and simulated as long as it was possible to represent its various potential states in an abstract, formalized system of symbols. This is the crux of the Turing test, first proposed in 1950. Following this proposition, generations of programmers have attempted to design clever representations of human intelligence in order to fool test juries into believing their bots are people. Fast-forward to the social bot gathering data or selling soft drinks, and “[w]e can now imagine a modified Turing Test in which the jury must tell the human, the robot, and the ephemeral brand apart.”⁷ However, as Gehl argues, the success of social bots on platforms like Facebook are less a result of programming ingenuity, and more an expression of how user activity on social media is pre-formatted as a discrete, formalized set of actions, i.e. in a way that is computable. It is easy for a bot to come across as real when ‘real’ amounts to a predictable set of demographics, likes, interests and other values in a database.

Second, reverse engineering means revealing how social media and the fundamental engineering concepts they express are entangled in questions of power and political economy. Gehl examines the social bots and templated user actions explored in chapter one, for example, as an emerging manifestation of noopower, or “the action before action that works to shape, modulate, and attenuate the attention and memory of subjects.”⁸ In chapter two, crowdsourced media platforms are analyzed in terms of how they reproduce the von Neumann architecture, which separates the computer’s central processing

unit from its memory or storage unit. What this metaphorical frame highlights is how social media companies make full use of the processing power of their users (who continually manipulate, tag, rate and “like” chunks of data) but control access to the archive, the mass of stored data that these companies use for the benefit of themselves and advertisers.

Engineering concepts and critical theory meet again in chapter three, which analyzes the demise of MySpace and the rise of Facebook. Here, Gehl shows how MySpace’s “abstraction failure” – that is, the various bugs, security breaches and page load errors that pointed to flaws in its technical design for incorporating user-generated content and code – were related to a broader “real abstraction” failure, an inability to govern use in a way that would maximize the company’s ability to extract value from it. By contrast, Facebook’s commercial success can be explained in relation to its ability to discipline use at various levels, from its clean interface and limits on customization to the prevalence of real-world (rather than anonymous or pseudonymous) identities. This discipline is both a technological and social achievement, relying on careful implementation of code and the management of users’ practices and expectations.

“Standardizing Social Media,” the book’s fourth chapter, extends Alexander Galloway’s⁹ analysis of protocols as the locus of control in new media production, but with a twist. As Gehl argues, the standards that matter most for social media platforms are not those related to the end-to-end principle (TCP/IP) or bookish information management (HTTP). Rather, they are the increasingly sophisticated standards for user data and advertising formats that social media companies and advertising networks actively pursue through consortia like the Interactive Advertising Bureau. The concomitant development of these standards and social media templates that allow users to declare their interests changed the advertising landscape, as “advertisers stopped buying space on websites and started buying access to the hopes and desires of users.”¹⁰

The third sense of reverse engineering is to repurpose the acquired knowledge of how social media work to conceptualize an alternative. In chapter five, Gehl narrates the story of Wikipedia becoming a non-profit after the 2002 “Spanish fork,” when editors of the Spanish-language Wikipedia joined together in protest of proposals to place advertisements on the collaborative encyclopedia. Gehl calls the event a “labour strike” and argues that it is an example of social media labourers becoming a class “for itself, capable of articulating its interests and resisting exploitation.”¹¹ This isn’t simply a case of ‘waking up,’ however, and Gehl points out how crucial the legal and technological architecture of Wikipedia was in enabling the strikers to resist the commodification of their work. In this light, the final chapter of the book offers a blueprint for “socialized media,” listing the various material requirements and specifications necessary for a truly free, non-exploitative form of social media – from the use of the General Public License to an ability to run on ostensibly superceded hardware. The book ends on a somewhat hopeful note, with an overview of alternative social media platforms that, at the very least, point to the potential for replacing the dominant model of consumer surveillance and the exploitation of free labour.

While the focus on creating alternatives is a welcome and necessary respite from much new media criticism, *Reverse Engineering*’s real strength is its innovative theoretical framework for analyzing the political economy of social media. However, this ambitious interpretive lense is also the source of some of the book’s weaknesses, one of which is a very inclusive definition of social media as (first and foremost) a mode of production. At times, this definition expands to include such disparate objects as Google’s search engine and Amazon’s Mechanical Turk – what holds these together is that they all take advantage of the work being done by users. In this view, there is not so much difference between Facebook users processing the platform’s ‘social graph’ and Google’s users clicking their way to a more effective advertising apparatus. This definition does not entirely rule out considering social media in terms of particular genres or forms, but it’s worth considering how such analysis would impact Gehl’s argument. For instance, Gehl presents the Spanish fork as an example for other social media labourers to follow, but surely one has to take into account the large gap between Wikipedia as a collaborative form and practice of knowledge production and the high-school yearbook culture and other structures embedded in Facebook’s architecture and design.

Another issue is a tendency to grant new media capitalism an explanatory power that may not hold up on closer examination. Painting with broad strokes is necessary for such a critique and Gehl wears his theoretical and normative commitments on his sleeve, however it is worth considering what a more nuanced understanding of social media production would look like. One could imagine, for instance, an interrogation of new media capital (in a Bordieudian sense) that shows how this also comprises values

and practices that cannot be reduced to the needs of new media capitalism. This might include legacies of the “digital utopianism”¹² that accompanied the rise of new media capitalism in the mid-1990s, or the geeky emphasis (inherited from software engineering culture) on elaborate and/or clever solutions to perceived problems, whether or not these map neatly onto the aims of corporations and advertisers.

These comments aside, I highly recommend *Reverse Engineering Social Media* for anyone interested in social media criticism. In addition to the novel theoretical framework and a number of valuable insights into the work of social media platforms, the book is simply well-written. It maintains a high level of clarity even while employing difficult concepts from computer science and critical theory. Because of this I would also consider it for graduate and perhaps advanced undergraduate courses on social media, as a complement and counterweight to literature that explores these platforms in the context of participatory culture.

Bio

Michael Stevenson is Assistant Professor of New Media & Digital Culture at the Centre for Media and Journalism Studies, University of Groningen. He earned his PhD in 2013 from the University of Amsterdam for research on the history of web exceptionalism and web publishing. Stevenson is a founding member of the Digital Methods Initiative, a research group devoted to the development of web-specific methods for empirical media research, and has co-created numerous digital media art projects exhibited in such venues as the Nederlands Instituut voor Mediakunst. He also maintains WebCultures, a mailing list focused on web history and allied fields.

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Notes

1. Wikipedia contributors, “Criticism of Facebook.” ↩
2. Gehl’s work can be read as a much-needed, social media age follow-up on Tiziana Terranova’s seminal analysis of the relationship between “unpaid technocultural production” and contemporary capitalism. Terranova, *Network Culture*, 4. ↩
3. Gehl, 5. ↩
4. *ibid.* ↩
5. Gillespie, “The Politics of ‘platforms.’” ↩
6. Gehl, 16. ↩
7. Gehl, 40. ↩
8. Gehl, 23. ↩
9. Galloway, *Protocol* ↩
10. Gehl, 108. ↩
11. Gehl, 123–4. ↩
12. Turner, *From Counterculture to Cyberculture* ↩

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